

Application No. 10/737,324

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) An endoprosthesis having a longitudinal direction and a circumferential direction, said endoprosthesis comprising:

a stent component having a small delivery profile and an enlarged deployed profile, said stent component having adjacent elements with space between the adjacent elements; and

a graft material attached to the stent component covering the space between the adjacent stent elements to form a substantially integral and continuous luminal surface;

wherein said graft material has anisotropic strength properties and is oriented so as to be weaker in the longitudinal direction than in the circumferential direction; and

wherein following deployment, the endoprosthesis is adapted to be cohesively disassembled by splitting of the graft material between the adjacent elements of the stent component to allow for its remote removal from a patient.

2. (Canceled)

3. (Original) The endoprosthesis of claim 2 wherein the stent component and attached graft material are removable at a profile less than the enlarged deployed profile.

4. (Original) The endoprosthesis of claim 2 wherein the stent component and attached graft material are removable at a profile less than the small delivery profile.

5. (Original) The endoprosthesis of claim 1 wherein the endoprosthesis disassembles in a helical fashion.

6. (Original) The endoprosthesis of claim 1 wherein the endoprosthesis disassembles and removes in a single piece.

7. (Withdrawn) The endoprosthesis of claim 1 wherein the endoprosthesis disassembles and removes in multiple pieces.

8. (Original) The endoprosthesis of claim 1 wherein the endoprosthesis disassembles and increases in length by at least 100%.

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9. (Original) The endoprosthesis of claim 1 wherein the endoprosthesis disassembles and increases in length by at least 500%.

10. (Original) The endoprosthesis of claim 1 wherein the graft material is impermeable.

11. (Original) The endoprosthesis of claim 1 wherein the graft material is permeable.

12. (Original) The endoprosthesis of claim 1 wherein the endoprosthesis is adapted to be controllably foreshortenable by at least about 20%.

13. (Original) The endoprosthesis of claim 1 wherein the endoprosthesis is adapted to be controllably foreshortenable by at least about 50%.

14. (Canceled)

15. (Original) The endoprosthesis of claim 1 wherein the removal is atraumatic.

16. (Original) The endoprosthesis of claim 1 wherein the graft material comprises expanded polytetrafluoroethylene.

17. (Original) The endoprosthesis of claim 1 wherein the graft material comprises a tape having a length that is adapted for splitting along the length of the tape.

18. (Original) The endoprosthesis of claim 17 wherein the tape and the stent component are helically oriented at pitch angles that are substantially the same.

19. (Original) The endoprosthesis of claim 1 wherein the graft material comprises a tape, and wherein the tape and the stent component are helically oriented at pitch angles that are substantially the same.

20. (Canceled)

21. (Currently amended) The endoprosthesis of claim [20]19 wherein the tape comprises expanded polytetrafluoroethylene.

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22. (Canceled)

23. (Currently amended) The endoprosthesis of claim [22]1 wherein the graft material has a thickness and [the means for splitting comprises] is provided with a row of perforations extending through at least a portion of the thickness of the graft material.

24. (Currently amended) The endoprosthesis of claim [22]1 wherein the graft material has a thickness and [the means for splitting comprises] is provided with a line of reduced thickness in comparison to the thickness of the remainder of the graft material.

25. (Withdrawn) The endoprosthesis of claim 22 wherein the means for splitting comprises an anisotropic graft material that is tearable in one direction and resistant to tearing in a direction transverse to the one direction.

26. (Withdrawn) An endoprosthesis having a length comprising:

a stent component;
a graft material attached to the stent component to form a continuous luminal surface;
wherein the endoprosthesis can be partially disassembled in situ to shorten the length of the endoprosthesis.

27. (Withdrawn) An endoprosthesis comprising:

a stent component having a small delivery profile and an enlarged deployed profile;
a graft material attached to the stent component to form a continuous luminal surface;
wherein following deployment, the stent component is adapted to be cohesively disassembled from the graft material to allow for the remote removal of at least a portion of the stent component from a patient.

28. (Withdrawn) The endoprosthesis of claim 27 wherein the graft material remains in situ following removal of the stent.

29-34. (Canceled)